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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,798	01/10/2002	Michael Tombs	211/New	8385
22440	7590	02/17/2005		
GOTTLIEB RACKMAN & REISMAN PC 270 MADISON AVENUE 8TH FLOOR NEW YORK, NY 100160601			EXAMINER LAMB, BRENDA A	
			ART UNIT	PAPER NUMBER
			1734	

DATE MAILED: 02/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/044,798

Applicant(s)

Tombes et al

Examiner

LAMB

Group Art Unit

1734

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☒ Responsive to communication(s) filed on 10/26/2004
- ☒ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 8-35 is/are pending in the application.
- ☐ Of the above claim(s) _____ is/are withdrawn from consideration.
- ☒ Claim(s) 25-28 and 32-35 is/are allowed.
- ☒ Claim(s) 8-12, 14, 16, 17 and 20-22 and 29-30 is/are rejected.
- ☒ Claim(s) 13, 15, 18, 19, 23, 24 and 31 is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some* ☐ None of the:
 - ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s) 11/01/2004
- ☐ Interview Summary, PTO-413
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

Office Action Summary

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 8-10, 12, 14 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Japan 10-70360.

Japan '360 teaches the design of a dip coating apparatus comprised of a nozzle 4 having an outlet through which solder is flowed wherein the nozzle includes a member 6 provided at the nozzle outlet and having a surface wetted by the solder. Japan '360 apparatus is capable of coating component leads of a substrate which are selective

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movable between a raised and lowered conditioned for being dipped into the solder surface at the nozzle outlet since Japan '360 teaches every structural element of the apparatus as set forth in claim 8. With respect to claims 9 and 14, Japan '360 teaches the elongate plate 6 is positioned in the reservoir 3. The Japan '360 elongate plate has an upwardly facing edge and side surfaces extending downwardly. The Japan '360 apparatus is capable of coating component leads of a substrate which are selectively movable between a raised and lowered conditioned for being dipped into the solder surface at the nozzle outlet and Japan '360 plate is positioned so that adjacent leads of a component pass on each side of the plate edge outlet since Japan '360 every structural element of the claimed apparatus as set forth in claims 9 and 14. With respect to claim 10, Japan '360 shows the member is positioned below the level of the solder (see Figures 5(a) through 5(c)). With respect to claims 12 and 17, Japan '360 member 6 is capable of projecting through the solder surface.

Claims 11, 16, 20-22, 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 10-70360.

Japan '360 is applied for the reasons noted above. In the newly provided translation, Japan '360 teaches that member is attached to the reservoir. Japan '360 fails to teach the member is movable or removably attached to the reservoir. However, it would have been obvious to modify the Japan '360 apparatus to removably attach the Japan'360 member to the reservoir for the obvious advantage to enable one to a line up the member with the conveyor system. Thus claims 11, 16, 20 and 29 are obvious over Japan '360. With respect to claim 21, Japan '360 shows the member is positioned

below the level of the solder (see Figure 5(a) through 5(c)). With respect to claims 22 and 30, Japan '360 member 6 is capable of projecting through the solder surface.

Applicant's arguments filed October 26, 2004 have been fully considered but they are not persuasive.

Applicant's argument that his invention is directed toward coating leads from a circuit board which are selectively movable between a raised and lowered position for dipping the leads of the circuit board into the solder surface at the nozzle outlet and his invention defines over the art of record in that function of plate 6 in Japan '360 is to prevent warpage of the circuit board is found to be non-persuasive. Japan '360 teaches the design of a dip coating apparatus comprised of a nozzle 4 having an outlet through which solder is flowed wherein the nozzle includes a member 6 provided at the nozzle outlet and the member 6 has a surface wetted by the solder. Japan '360 apparatus is capable of the intended end use of coating component leads of a substrate which are selectively removable between a raised and lowered condition for being dipped into the solder surface at the nozzle outlet since Japan '360 teaches every claimed structural element of the apparatus. Note it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ 2d 1647 (1987). Further, it is noted that the claims are silent as to the coating of a circuit board in contrast to that argued by applicant.

Note the submission of the newly provided translation of Japan 10-70360 attached to and referred to in applicant's amendment filed 10/26/2004 prompted the new grounds of rejection of previously presented claim 11.

Claims 13, 15, 18-19, 23-24 and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 25-28 and 32-35 are allowed.

The prior art fails to teach or suggest a dip soldering apparatus comprised of a nozzle through which the solder flows wherein the nozzle includes a member provided at the nozzle outlet and such member has a surface which is wetted by the solder, the surface of the member being positioned so as to be straddled by two adjacent leads of a component to be soldered, the apparatus further including a means for lowering the solder surface in order to effect the withdrawal of the component leads from the solder.

The prior art fails to teach or suggest a dip soldering apparatus comprised of a reservoir a reservoir for molten solder and an elongate plate provided in the reservoir and positioned at a surface of the molten solder, surface component leads for being dipped into the solder, the plate having an upwardly facing edge and side surfaces extending downwards from the plate edge, the plate being positioned and dimensioned so that adjacent component leads to be soldered pass to each side of the plate edge and the plate surface being of a material which is wetted by the molten solder, the apparatus further including a means for lowering the solder surface in order to effect the withdrawal of the component leads from the solder.

The prior art fails to teach or suggest a dip soldering apparatus comprised of a nozzle through which the solder flows wherein the nozzle includes a member provided at the nozzle outlet and such member has a surface which is wetted by the solder, the surface of the member being positioned so as to be straddled by two adjacent leads of a component to be soldered, wherein the member has a honeycomb structure.

The prior art fails to teach or suggest a dip soldering apparatus comprised of a reservoir a reservoir for molten solder and an elongate plate provided in the reservoir and positioned at a surface of the molten solder, surface component leads for being dipped into the solder, the plate having an upwardly facing edge and side surfaces extending downwards from the plate edge, the plate being positioned and dimensioned so that adjacent component leads to be soldered pass to each side of the plate edge and the plate surface being of a material which is wetted by the molten solder, wherein the member has a honeycomb structure.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

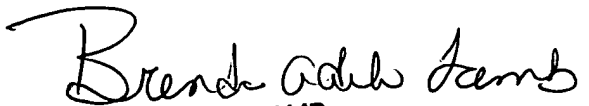
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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to Brenda A.

Lamb at telephone number (571) 272-1231.

B.A. Lamb/dh
January 14, 2005


BREND A. LAMB
PRIMARY EXAMINER